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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,465	10/03/2003	Andrew Paul Ormerod	F3318(C)	3327

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UNILEVER INTELLECTUAL PROPERTY GROUP
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EXAMINER	
DOERRLER, WILLIAM CHARLES	
ART UNIT	**PAPER NUMBER**
3744	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/678,465	ORMEROD ET AL.	
	Examiner	Art Unit	
	William C. Doerrler	3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 January 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8 and 10-16* is/are rejected.

7)☒ Claim(s) *9 and 17* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1-23-2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Independent claims 1-14 both claim "under -cooling" the vegetable to a temperature "less than or equal to -5° C". Applicant describes under-cooling as freezing without forming ice crystals. While applicants' invention will inhibit ice crystal formation at -5 degrees C, the claimed range is open ended. Applicant has not disclosed any means for inhibiting ice crystal formation at -20 degrees C, for example.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-8 and 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamane in view of Bourne '712.

Yamane (in column 7 line 46 and claim 1) discloses applicant's basic inventive concept, a food freezing system which undercools the food to -5 degrees C and then further freezes the food with the under cooling being achieved by soaking the food in a salt solution, substantially as claimed with the exception of using a calcium salt. Bourne '712 shows a food freezing system which heats the vegetables being treated to 140-150 F (60-68C) and using calcium salts during the heating to maintain the firmness of the vegetables (see abstract). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention from the teaching of Bourne '712 to use a calcium salt and heat to lower the freezing point of the food to permit longer storage and improved taste and texture. The vegetables treated are listed in the first paragraph of the detailed description in column 3 of Bourne. The calcium salts are listed in lines 7-11

of column 5 of Bourne. In regard to claims 10 and 14-16, since Bourne discloses the same process as applicants' claim, any material treated by the process is seen to have the same characteristics. Bourne'712 discloses applicants' basic inventive concept, a vegetable freezing method which treats the vegetables with a calcium salt and heats the vegetables to about 65C before freezing them to -18, substantially as claimed with the exception of specifying the percent of calcium in the solution or cooling tomatoes. Bourne specifies the remaining calcium in the product, but not the amount of calcium in the solution to produce this. While it is believed by the examiner that applicant's claimed range will leave the desired calcium in the product of Bourne, one of ordinary skill n the art would consider such a solution to impart the desired effects taught by Bourne. Likewise, the preserving of tomatoes is seen as obvious since Bourne discloses a method of preserving grown foodstuffs and tomatoes are a well known, commonly preserved grown food.

Claims 1-5 and 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamane in view of Frane et al.

Yamane (in column 7 line 46 and claim 1) discloses applicant's basic inventive concept, a food freezing system which undercools the food to -5 degrees C and then further freezes the food with the under cooling being achieved by soaking the food in a salt solution, substantially as claimed with the exception of using a calcium salt. Frane et al discloses a preservation method for vegetables which uses calcium salts before freezing the vegetables to 0F (-18 C). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention from the teaching of Frane et al to

modify the freezing system of Yamane by using calcium salts to obtain vegetables which maintain good texture and text when thawed. While the heating steps of Frane et al do not match those in applicants' claim 1, this is seen as immaterial since the calcium salts are an alternative to the heating. Calcium citrate (for claim 2) is found in line 68 of column 2 of Frane. In regard to claim 4, the calcium limit is found at the top of column 3 of Frane. In regard to claim 5, Frane's example 1 immerses the vegetables in the solution for 7 minutes. In regard to claims 10 and 14-16, since Frane et al discloses the same process as applicants' claim, any material treated by the process is seen to have the same characteristics. In regard to claim 12, see example 2 of Frane.

Claims 1,2,6,7,10,11 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamane in view of Bengtsson et al.

Yamane (in column 7 line 46 and claim 1) discloses applicant's basic inventive concept, a food freezing system which undercools the food to -5 degrees C and then further freezes the food with the under cooling being achieved by soaking the food in a salt solution, substantially as claimed with the exception of using a calcium salt. Bengtsson et al discloses a blanching method for vegetables which heats the vegetables to applicants' claimed range (see examples) and teaches calcium chloride as a firming treatment (see line 15 of column 2). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention from the teaching of Bengtsson et al to modify the freezing system of Yamane by using a calcium salt to derive vegetables with retained texture and flavor. In regard to claims 10 and 14-16, since the proposed

combination discloses the same process as applicants' claim, any material treated by the process is seen to have the same characteristics.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-8 and 10-16 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 10 of copending Application No. 11-215255. Although the conflicting claims are not identical, they are not patentably distinct from each other because both claim systems for freezing vegetables by heating the vegetable, undercooling the vegetables and then deep freezing the vegetables. It is considered obvious to an ordinary practitioner in the art that to perform either independent claim of the present invention, one would be performing claim 10 of the '255 application. As the claims are not patentably distinct, a terminal disclaimer is required.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-8 and 10-16 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-5 of copending Application No. 10/678,461. Although the conflicting claims are not identical, they are not patentably distinct from each other because the earlier claims dominate the current claims. The present claims add the addition of heating the material (blanching) or using a calcium salt. Both of these food treatments were well known at the time of applicant's earlier application. It would have been obvious to one of ordinary skill in the art at the time of applicant's earlier invention to add a blanching or calcium salt step to preserve the texture and flavor of the frozen material. In regard to the substitution of vegetables for fruit for the material being frozen, this is seen as obvious to an ordinary practitioner, as both contain similar plant cells. It is further noted that applicant has claimed tomatoes in the current case and they are often considered fruits, and would be covered by applicant's earlier claims. As the claims are not patentably distinct, a terminal disclaimer is required.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Allowable Subject Matter

Claims 9 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments with respect to claims 1-8 and 10-16 have been considered but are moot in view of the new ground(s) of rejection. Yamane shows the undercooling of vegetables to be old in the freezing art. This is all that was lacking from the previous rejections.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Doerrler whose telephone number is (571) 272-4807. The examiner can normally be reached on Monday-Friday 6:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on (571) 272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

William C Doerrler
Primary Examiner
Art Unit 3744

WCD